

521,082

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number
WO 2004/089564 A1

(51) International Patent Classification⁷: **B22F 7/00**,
B01D 39/20, B22F 3/11

Alexander [DE/DE]; An der Goldenen Höhe 11, 01728
Hänichen (DE).

(21) International Application Number:
PCT/EP2004/003585

(74) Agent: **PFENNING, MEINIG & PARTNER GBR**;
Gostritzer Str. 61-63, 01217 Dresden (DE).

(22) International Filing Date: 5 April 2004 (05.04.2004)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
103 16 929.6 7 April 2003 (07.04.2003) DE

(71) Applicants (*for all designated States except US*): **INCO LIMITED** [CA/CA]; 145 Street West-Suite 1500, Toronto, Ontario M5H 4B7 (CA). **FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.** [DE/DE]; Hanstrasse 27c, 80686 München (DE).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **NAUMANN, Dirk** [DE/CA]; 5439 Middlebury Drive, Mississauga, Ontario L5M 5E8 (CA). **WEISSGÄRBER, Thomas** [DE/DE]; Am Feldrain 38, 01328 Dresden (DE). **BÖHM, Hans-Dietrich** [DE/DE]; Zwanziger Str. 13, 01324 Dresden (DE). **ENGELMANN, Beate** [DE/DE]; Martin-Luther-Str. 5, 01099 Dresden (DE). **WALTHER, Gunnar** [DE/DE]; Wittenberger Str. 68, 01309 Dresden (DE). **BÖHM,**

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPEN-POROUS MOLDED BODY, METHOD FOR PRODUCTION AND USE THEREOF

(57) Abstract: The invention relates to a method for fabricating an open-porous molded body which is formed from nickel or iron and at least another element which form solid solutions or intermetallic phases as well as a molded body which is correspondingly fabricated, and the use thereof. During the fabrication it is proceeded then, such that a coating with a metallic powder forming solid solutions or intermetallic phases is deposited upon an open-porous body made of nickel or iron by means of an organic binder. Subsequent thereto, the open-porous body provided with the coating is brought into the desired shape with observing minimum bending radii, and subsequently the organic components are removed in a first thermal treatment step. By means of a second thermal treatment the open-porous molded body is sintered, and the solid solution or the intermetallic phase are formed.

WO 2004/089564 A1